SIEMENS

Farbfernsehgeräte
Color TV
Televisore a colori

FS 221 V6 FS 233 V4
FS 223 V4 FS 236 V2
FS 227 V6 FS 237 V6
FS 228 V4 FS 241 V6

Kurzfassung der Serviceschrift für Grundchassis
Service manual for basis chassis
Istruzioni d'assistenza il telaio

CS 9106

(D)

Abgleichv

Alle nicht beschri
werksseitig abge
vice-Fall nicht ve

1. Chassis

1.1 Regelspannungsverzögerung
Normtestbild auf hohen UHF Kanal legen, die HF sollte mindestens 1,5 mV (64 dBµV, rauschfreies Bild) betragen. Regler R 341 (Kontakt 14, ZF-Verst.) drehen bis das Bild zu rauschen beginnt, dann wieder zurückdrehen bis das Bild gerade rauschfrei wird.

1.1 Abgleich der Zeilenfrequenz
1. FBAS Sync. am Emitter des Transistors T 241 nach Masse kurzschließen.
2. Mit dem Einstellregler R 506 Bild auf langsames Durchlaufen einstellen.
3. Kurzschluß entfernen.

1.2 Abgleich der Zeilenphase
1. Die Bildbreitenspule L 567 auf Minimum stellen.
2. Stellen Sie mit dem Trimmer R 525 den grauen Bildrand symmetrisch zum rechten und linken Bildraster ein.
3. Die Bildbreitenspule wieder nach Testbild einstellen.

1.3 Videotext-Anpassungsabgleich
Der Einsteller R 242 ist bei der Auslieferung auf kleinste Höhenanhebung eingestellt.
Treten trotz einwandfreiem Antennensignal Zeichenfehler auf, Regler R 242 langsam verstellen bis die Fehler verschwinden. Nicht weiterdrehen, da sonst die Fehlerhäufigkeit wieder zunehmen kann.
Während des Abgleichs ist es notwendig, daß Sie die Seite 199 ständig neu anwählen, da nur so der Inhalt neu eingelesen wird und eine Beurteilung der Fehlerschwelle möglich ist.

tment procedures

ment controls not mentioned in this
n are adjusted during production and
be re-adjusted in the case of repairs.

1. Chassis

1.1 Delayed Automatic Gain Control Voltage
Feed in a standard test pattern at a channel in the upper range of the UHF Band. The RF should be at least 1,5 mV (64 dBµV, noise free picture). Rotate the control R 341 (contact 14, IF-Ampl.) until noise just begins to appear in the picture, then reverse the direction of the control until the picture just becomes noise free.

1.2 Adjustment of Line Frequency
1. Short circuit FBAS Sync. at emitter of transistor T 241 to chassis.
2. With the adjustment control R 506, adjust so that the picture runs through slowly.
3. Remove the short circuit.

1.3 Adjustment of Line Phase
1. Set the picture width control L 567 to minimum.
2. With the adjustment control R 525 set the grey picture edges to be symmetrical within the right and left picture frame.
3. Reset the picture width control to conform with the test pattern.

1.4 Teletext adjustment
At the time of delivery the control R 242 is set to the smallest treble boost.
If, with a perfect aerial signal, character faults occur, turn R 242 slowly until the faults disappear. Do not turn R 242 any further as the error rate may increase again.
Page 199 must always be selected anew during the adjustment, so that the page is read in again making it possible to evaluate the error rate.

(I)

Taratura

Tutti i componenti non descritti, sono stati tarati in fabbrica e non devono essere regolati in caso di servizio.

1. Telaio

1.1 Ritardo della tensione di regolazione
Porre il monoscopio su un canale UHF elevato, il segnale AF deve essere almeno 1,5 mV (64 dBµV, immagine priva di fruscio). Ruotare il regolatore R 341 (contatto 14, Ampl. FI) l'immagine comincia ad apparire frusciata, successivamente girarlo in senso opposto finché nell'immagine scompare il fruscio.

1.2 Taratura della frequenza di riga
1. Cortocircuitare verso massa il emittore T 241 FBAS Sync.
2. Regolare R 506 finché l'immagine scorre lentamente.
3. Togliere il cortocircuito.

1.3 Taratura della fase di riga
1. Regolare al minimo il regolatore di larghezza L 567.
2. Con R 525 regolare il bordo grigio dell'immagine simmetricamente al raster d'immagine a destra e a sinistra.
3. Regolare nuovamente in base al monoscopio il regolatore di larghezza.

1.4 Taratura Televidec
Il regolatore R 242 viene fornito col cursore girato minima esaltazione delle alte frequenze ca. 2 dB. Se si manifestano errori di carattere nonostante un perfetto segnale d'antenna girare lentamente il cursore di R 242 finché gli errori sono eliminati. Non girarlo oltre può aumentare la presenza degli errori.
Durante la taratura è necessario selezionare ripetutamente la pagina 199, poiché solo così è possibile una nuova immissione della pagina ed una valutazione della soglia degli errori.

2. Bildrohrplatte

Weißabgleich
- FuBK - Testbild einspeisen.
- ◑ min., ○ nom., ◗ max. einstellen.
- Regler VG und VB (Bildrohrplatte) so einstellen, daß keine Verfärbungen in den Grauwerten sichtbar sind

3. Farb/RGB

3.1 Sperrpunktabgleich:
Eine manuelle Einstellung ist nicht möglich, da die Steckkarte eine automatische Dunkelstromregelung besitzt.
Kontrolle des Sperrpunkts (Oszilloskop erforderlich):
- FuBK-Testbild einspeisen.
- ◑ min., ○ nom., ◗ min. einstellen.
- Tastkopf an den Kollektoren der Transistoren T 736, T 756, T 776 (Bildrohrplatte) anhängen. Die Schwarzwerte der drei Kathodensignale liegen bei ca. 140 - 150 V.

3.2 Einstellungen im Farbkanal:
Bei allen Messungen Tastkopf 10:1, um Belastungen zu vermeiden.
- PAL-Testbild einspeisen.
- Abgleich des Farbtraps:
  Tastkopf an Pin 17 des IC 5120, das Y-Signal mit dem Filter F 5013 auf minimalen Farbträger einstellen.
- Pin 11 des IC 5081 mit Masse verbinden.
- Mit Trimmer C 5071 die durchlaufenden Farbbalken zum Stehen bringen.
- Kurzschlußbrücken entfernen.
- Farbauskopplung PAL:
  Tastkopf an Emitter des Transistors T 5048, mit Filter F 5046 auf maximalen Farbträger einstellen.

Bei PAL/SECAM- bzw. Multi-Ausführung:
- SECAM-Testbild einspeisen.
- Einen Tastkopf eines Zweistrahl-Oszilloskopes an Pin 3 des IC 5080, den zweiten Tastkopf an Pin 1 des IC 5080.
- Durch wechselseitigen Abgleich des Filters F 5083 und des Reglers R 5083 die Nullinien des (B-Y)- und des (R-Y)-Signals auf Zeilentastniveau bringen.
  Hinweis: Mit F 5083 beginnen.
- SECAM-Glockenfilterabgleich:
  Tastkopf an Pin 12 des IC 5100.
  Mit F 5051 das (B-Y)-Signal einer Farbtreppe auf symmetrische und minimale Überschwinger abgleichen.

Bei Multi-Ausführung:
- NTSC-Testbild einspeisen.
- Pin 26 des IC 5080 mit +12 V verbinden.
- Pin 17 des IC 5080 mit Masse verbinden.
- Mit Trimmer C 5071 die durchlaufenden Farbbalken zum Stehen bringen.
- Ein Abgleich der Farbauskopplung und des Farbtraps ist nach erfolgtem PAL/SECAM-Abgleich nicht erforderlich.

2. CRT base

White level adjustment
- Display color bar test pattern.
- Set ◑ to min., ○ to nom., ◗ to max.
- Adjust presets VG and VB (CTR) so that the picture does not show any colouration.

3. Color/RGB

3.1 Cut-off point alignment:
A manual adjustment is not possible as an automatic Dark-current control circuit is incorporated in the Plug-in Board.
Checking the Cut-off Point (an oscilloscope is required):
- Feed in a FuBK Test Pattern.
- Adjust ◑ to min., ○ to nom., ◗ to min.
- Connect a test probe to collectors of the transistors T 736, T 756, T 776 (Picture Tube panel). The Black Level of the three signals on the cathodes will be at approx. 140 - 150 V.

3.2 Colour Channel adjustments:
Set the test probe to 10:1 for all measurements to avoid loading errors.
- Feed in a PAL Test Pattern.
- Colour Trap alignment:
  Connect a test probe to pin 17 of IC 5120 and adjust Filter F 5013 so that the Colour Carrier within the Y-Signal is at minimum.
- Connect pin 11 of IC 5081 to chassis.
- Adjust Trimmer C 5071 so that the colour bars which are running through are stationary.
- Remove the short-circuits.
- Coupling out the PAL Colour:
  Connect a test probe to the emitter of transistor T 5048 and adjust Filter F 5046 for maximum Colour Carrier.

For PAL/SECAM resp. Multi Version:
- Feed in a SECAM Pattern.
- Connect a test probe from the Dual Beam Oscilloscope to pin 3 of IC 5080 and the second test probe to pin 1 of IC 5080.
- By adjusting the Filter F 5083 and the control R 5083 alternately, set the Zero lines of the (B-Y)- and the (R-Y)-signals to the Line Blanking Threshold.
  Note: Commence with F 5083.
- SECAM-Bell Filter Alignment:
  Connect a test probe to pin 12 of IC 5100.
  Adjust F 5051 so that the (B-Y)-Signal of one Colour staircase is symmetrical and contains minimum overshoots.

For Multi Version:
- Feed in a NTSC Test Pattern.
- Connect pin 26 of IC 5080 to the +12 V supply.
- Connect Pin 17 of IC 5080 to chassis.
- Adjust Trimmer C 5071 so that the colour bars which are running through are stationary.
- Adjustments for coupling out the Colour and the Colour Trap are not necessary after carrying out the PAL/SECAM alignment.

2. Piastra cinescopio

Taratura del bianco
- Applicare un monoscopio FuBK.
- Regolare ◑ al minimo, ○ sul valore nominale e ◗ al massimo.
- Con i regolatori VG e VB (piastra cinescopio) eliminare eventuali macchie di colore.

3. Colore/RVB

3.1 Taratura del punto di blocco:
Una regolazione manuale non è possibile, poiché questa scheda incorpora una regolazione automatica della corrente d'interdizione.
Controllo del punto di blocco (è necessario un oscilloscopio):
- Applicare un monoscopio FuBK.
- Regolare ◑ al minimo, ○ sul valore nominale e ◗ al minimo.
- Collegare la sonda ai colletori dei transistori T 736, T 756, T 776 (piastra cinescopio). Il valore nero dei tre segnali catodici è di circa 140 - 150 V.

3.2 Taratura nel canale croma:
Impiegare una sonda 10:1 per tutte le misure, in modo da evitare carichi.
- Applicare il monoscopio PAL.
- Taratura della trappola colore:
  Sonda al pin 17 di IC 5120: con F 5013 tarare il segnale Y sul minimo della portante colore.
- Collegare a massa il pin 11 di IC 5081.
- Con C 5073 fermare le barre colorate scorrevoli.
- Togliere i cortocircuiti.
- Disaccoppiamento croma PAL:
  Sonda all'emettitore di T 5048: con F 5046 regolare per la massima portante colore.

Al PAL/SECAM o prodotto Multi:
- Applicare il monoscopio SECAM.
- Collegare una sonda dell'oscilloscopio al pin 3, l'altra va collegata al pin 1 di IC 5080.
- Tarare alternativamente con F 5083 e R 5083 portando le linee zero dei segnali (B-Y) e (R-Y) sul livello della frequenza di riga.
  Nota: Iniziare con F 5083.
- Taratura del filtro a campana SECAM:
  Sonda al pin 12 di IC 5100. Con F 5051 tarare il segnale (B-Y) di una scala cromatica per una sovraoscillazione simmetrica minima.

Solo prodotto Multi:
- Applicare un momoscopio NTSC.
- Collegare il pin 26 di IC 5080 a +12 V.
- Collegare il pin 17 di IC 5080 alla massa.
- Con C 5071 fermare le barre colorate scorrevoli.
- Effettuata la taratura PAL/SECAM, non è necessaria alcuna successiva taratura cromatica e della trappola colore.

4. Tuner-ZF (PIP-Einheit)

Tuner-Regelspannungseinsatz

- Normtestbild auf hohen UHF-Kanal legen, die HF sollte mindestens 1,5 mV (64 dBµV) rauschfreies Bild betragen.
- Einstellregler R 9008 (IC 9020, Pin 14) verdrehen bis das Bild zu rauschen beginnt, dann wieder zurückdrehen bis das Bild gerade rauschfrei wird.

4. Tuner-IF (PIP Unit)

Start-up of the tuner control voltage

- Feed in a standard test pattern at a channel in the upper range of the UHF band. The RF should be last 1,5 mV (64 dBµV, noise free picture).
- Rotate the control R 9008 (IC 9020, Pin 14) until noise just begins to appear in the picture, then reverse the direction of the control until picture just becomes noise free.

4. Tuner-FI (unità PIP)

Tensione di regolazione del Tuner

- Applicare un monoscopio su un canale alto in UHF. Il segnale deve essere almeno 1.5 mV (64 dBµV - immagine priva di fruscio).
- Regolare R 9008 (IC 9020, pin 14) finchè nell' immagine comincia ad apparire fruscio. Quindi tarare il trimmer in senso contrario finchè l'immagine appare priva di fruscio.

5. PIP-Farb/RGB

5.1 Abgleich der Zeilenfrequenz

- Pin 5 des IC 5810 (TDA 2579 A) nach Masse kurzschließen.
- Oszilloskop Tastkopf an Pin 17, IC 5810 (Zeitbasis 20 µsec/cm).
- Am externen Triggereingang des Oszilloskops das FBAS-Signal von Bausteinkontakt 1 anschließen.
- Mit Einstellregler R 5812 HA-Impuls zum Stehen bringen.
- Kurzschluß entfernen.

5.2 Einstellungen im Farbkanal

- PAL-Testbild einspeisen.
- ◑ nom., ○ nom. ◑ max. einstellen.
- Pin 28 des IC 5850 (TDA 4557) mit +12V verbinden.
- Pin 17 des IC 5850 (TDA 4557) mit Masse verbinden.
- Mit Trimmer C 5783 die durchlaufenden Farbbalken zum Stehen bringen.
- Kurzschlußbrücken entfernen.
- Oszilloskop Tastkopf an Pin 19, IC 5520, SDA 9087 (Y-Eingang).
  Am externen Triggereingang des Oszilloskops das FBAS Signal von Bausteinkontakt 1 anschließen.
  Mit PAL-Filter F 5773 den Farbträger im Y-Signal auf Minimum abgleichen.

- SECAM-Testbild einspeisen.
- Pin 27 des IC 5850 (TDA 4557) mit 12V verbinden.
- Hochohmiges Voltmeter an Pin 21 des IC 5850 anschließen.
- Spannung mit F 5794 auf Maximum abgleichen.
- Kurzschluß entfernen.
- Tastkopf an Pin 1 des IC 5850 anschließen.
- Mit dem Filter F 5857 (DR) die Nullinie des (R-Y)-Signals auf Zeilenaustastniveau bringen.
- Tastkopf an Pin 3 des IC 5850 anschließen.
- Mit dem Filter F 5878 (DB) Nullinie des (B-Y)-Signals auf Zeilenaustastniveau bringen.
- Die SECAM-Glockenkurve mit Filter F 5751 so einstellen, daß das (B-Y)-Signal symmetrisch ist und keine Überschwinger hat.

Bei Multi-Ausführung:

- NTSC-Testbild 3.58 MHz (Tonfrequenz 4.5 MHz) einspeisen.
- Pin 26 des IC 5850 mit +12V verbinden.
- Pin 17 des IC 5850 mit Masse verbinden.
- Mit Trimmer C 5788 die durchlaufenden Farbbalken zum Stehen bringen.
- Kurzschlußbrücken entfernen.
- Mit dem Filter F 5761 den 4,5 MHz Tonträger auf Minimum abgleichen.

5. PIP-Colour/RGB

5.1 Adjustment of Line Frequency

- Short circuit Pin 5 of IC 5810 (TDA 2579 A) to chassis.
- Connect a test probe to pin 17 of IC 5810 (set to 20 µsec/div).
- Connect the external trigger input to contact 1 of PIP-Colour/RGB module (CCVS signal).
- Set R 5812 so that HA-pulse is no longer sweeping horizontally.
- Remove the short circuit.

5.2 Adjustments in chroma channel

- Feed in PAL test pattern.
- Adjust ◑ and ○ to nominal value, ◑ to maximum.
- Connect pin 28 of IC 5850 (TDA 4557) to +12V supply.
- Connect pin 17 to IC 5850 (TDA 4557) to chassis.
- Adjust trimmer C 5783 for stationary pattern in colour bars.
- Remove wire links.
- Connect a test probe to pin 19 of IC 5520, SDA 9087 (input Y).
- Connect the external trigger input to contact 1 of PIP-Colour/RGB module (CCVS signal).
- With PAL-filter F 5773 set the colour carrier of the Y-signal to minimum.

- Feed in SECAM test pattern.
- Connect pin 27 of IC 5850 (TDA 4557) to +12V supply.
- Connect high-impedance voltmeter to pin 21 of IC 5850.
- Use filter F 5794 (DL) to align voltage to maximum.
- Remove wire links.
- Connect test probe to pin 1 of IC 5850.
- Use filter F 5857 (DR) to align zero level of the (R-Y) signal with the line black level.
- Connect test probe to pin 3 of IC 5850.
- Use filter F 5878 (DB) to align zero level of the (B-Y) signal with the line black level.
- With filter F 5751 adjust the SECAM bell characteristic so that the (B-Y) signal is symmetrical and free of overshooting.

For Multi Version:

- Feed in 3.58 MHz NTSC test pattern (sound frequency 4.5 MHz).
- Connect pin 26 of IC 5850 to +12V supply.
- Connect pin 17 of IC 5850 to chassis.
- Adjust trimmer C 5788 for stationary pattern in colour bars.
- Remove wire links.
- With filter F 5761 adjust the 4.5 MHz sound carrier to minimum.

5. Farb/RGB-PIP

5.1 Taratura della frequenza di riga

- Cortocircuitare a massa il pin 5 di IC 5810 (TDA 2579A).
- Collegare la sonda dell' oscilloscopio al pin 17 di IC 5810 (base dei tempi 20 µsec/cm).
- Applicare il segnale FBAS disponibile al contatto 1 del modulo all' ingresso della triggerazione esterna dell' oscilloscopio.
- Regolare R 5812 finchè l'impulso HA risulta stabile (fermo).
- Togliere il corto circuito.

5.2 Regolazioni nella sezione croma

- Applicare un monoscopio PAL.
- Regolare ◑ e ○ normali ed ◑ al massimo.
- Collegare il pin 28 di IC 5850 (TDA 4557) a +12 V.
- Collegare a massa il pin 17 di IC 5850 (TDA 4557).
- Regolare C 5783 finchè le barre colorate risultano ferme.
- Togliere i ponticelli.
- Collegare la sonda dell' oscilloscopio al pin 19 di IC 5220, SDA 9087 (ingresso Y). Applicare il segnale FBAS disponibile al contatto 1 del modulo all'ingresso della triggerazione esterna dell'oscilloscopio.
- Col filtro PAL F 5773 tarare al minimo la portante croma nel segnale Y.
- Applicare un monoscopio SECAM.
- Collegare il pin 27 di IC 5850 (TDA 4557 a +12 V).
- Collegare un voltmetro ad alta impedenza al pin 21 di IC 5850.
- Tarare la tensione al massimo con F 5794.
- Togliere il ponticello (+12 V).
- Collegare la sonda dell' oscilloscopio al pin 1 di IC 5850.
- Col filtro F 5857 (DR) portarela linea zero del segnale (R-Y) al livello di soppressione di riga.
- Collegare la sonda al pin 3 di IC 5850.
- Col filtro F 5878 (DB) portare la lina zero del segnale (B-Y) al livello di soppressione di riga.
- Col filtro F 5751 tarare la curva a campana SECAM in modo che il segnale (B-Y) risulti simmetrico e privo di sovraoscillazioni.

Versione Multi System:

- Applicare un monoscopio NTSC- con 3,58 MHz (frequenza audio 4.5 MHz).
- Collegare il pin 26 di IC 5850 a +12 V.
- Collegare a massa il pin 17 di IC 5850.
- Regolare C 5788 finchè le barre colorate risultino ferme (stabili).
- Togliere i ponticelli.
- Col filtro F 5761, tarare la portante audio a 4,5 MHz al minimo.

Schaltplansymbole / Circuit diagram symbols / Simboli sullo schema

Zeilenbreite / Line width / Amplitude horizontale / Larghezza di riga / Amplitud horizontal

Hor. Frequenz / Hor. Frequency / Frequ. horiz. / Frequ. orizz. / Frequ. horiz.

Hor. Linearität / Hor. linearity / Linéar. Horizont / Linear. orizz. / Linear. Horizontal

Bildlage hor. / Hor. picture position / Cadrage horizont. / Posizione orizz. dimmagine / Centrado horizontal

Ost-West Amplitude / East-West amplitude / Amplitude Est - Ouest / Ampiezza Est-Ovest / Amplitud E-O

Ost-West Symmetrie / East-West symm. / Symm. Est-Ouest / Simm. Est-Ovest / Simetria E-O

Bildamplitude / Frame ampl. / Ampl. verticale / Ampiezza d'immagine / Ampl. vertical

Vert. Frequenz / Vert. frequency / Frequ. vert. / Frequ. vert. / Frequ. vert.

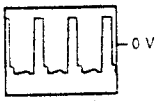
Vert. Linearität / Vert. linearity / Linearité vert. / Linear. vert. / Linealidad vert.

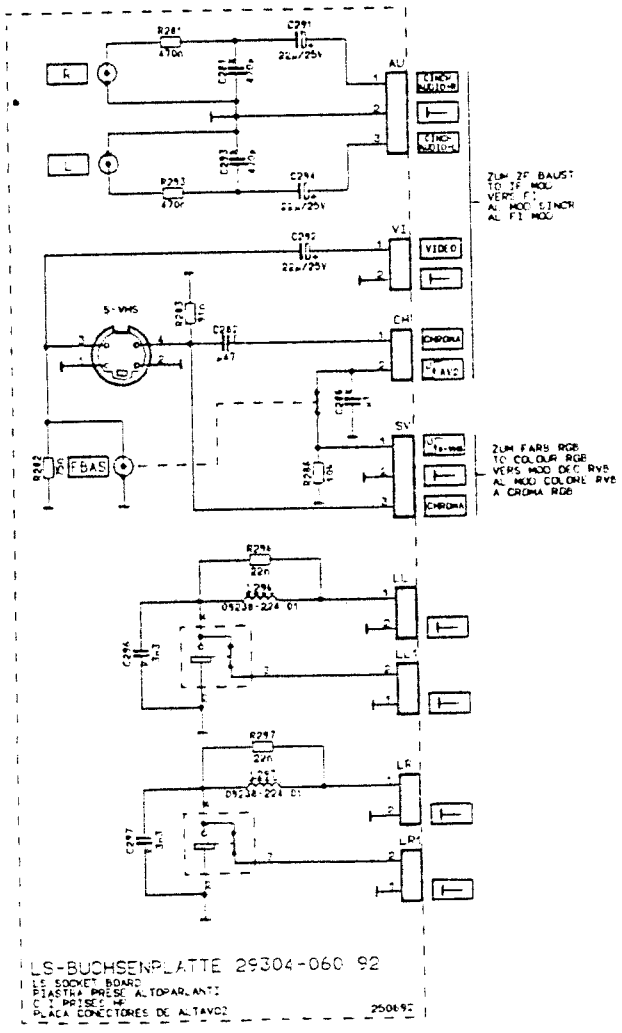
Bildlage vert. / Vert. picture position / Cadrage vertical / Posiz. vert. d'immagine / Centrado vert.

Focusregler / Focus control / Réglage de focalisation / Regolat. di focalizz. / Control de foco

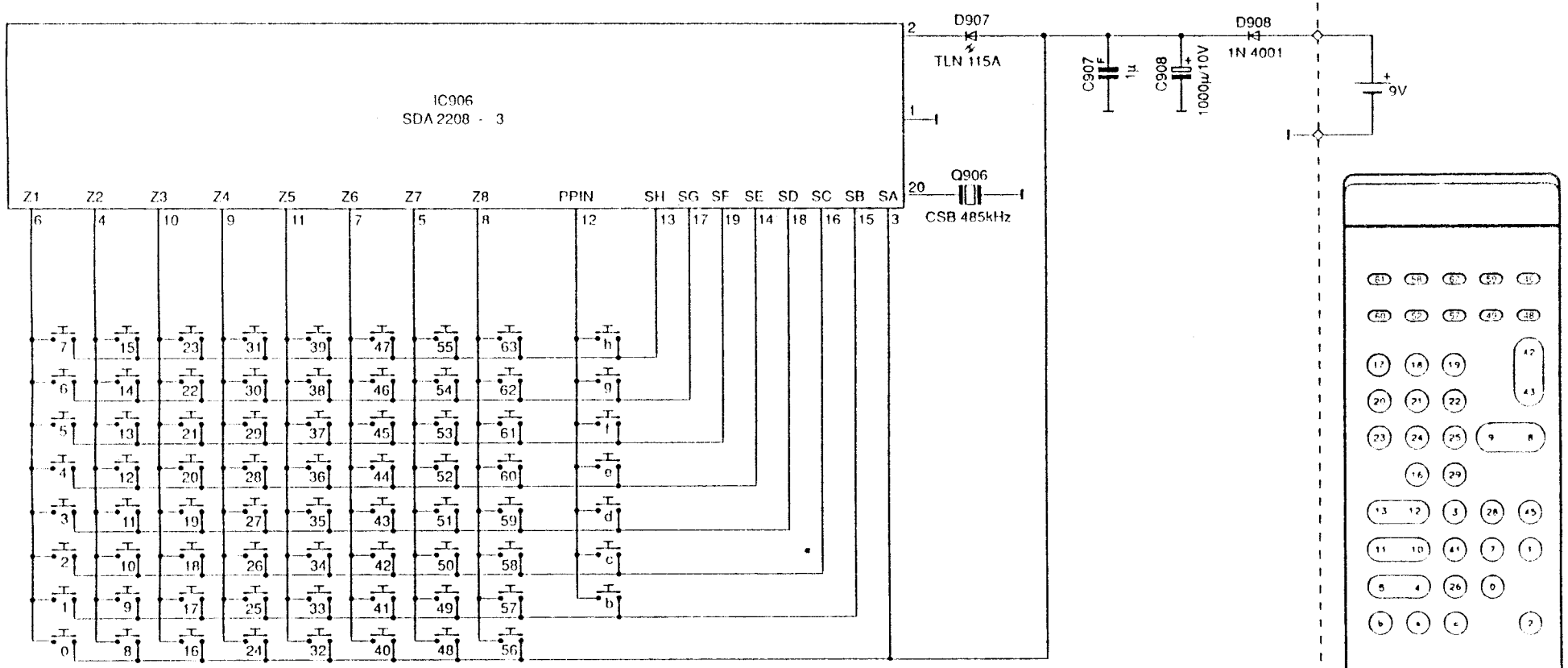
Trapez / Trapezium / Trapeze / Trapezio / Trapecio

Oszillogramme - Chassis / Oscillogrammes chassis / Oszillogrammi telaio

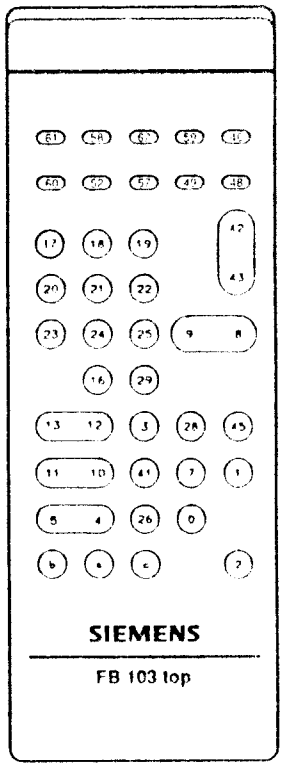


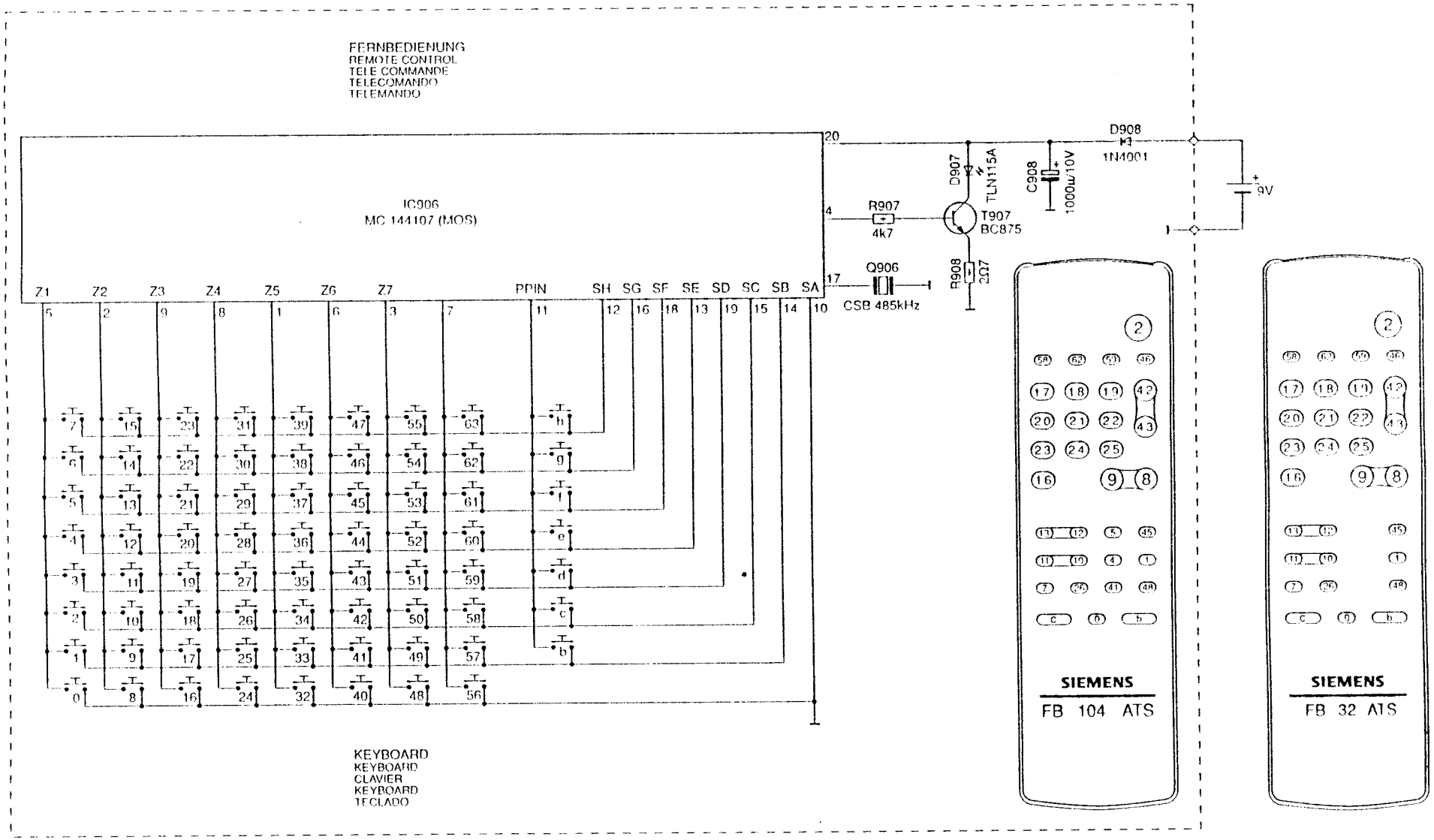


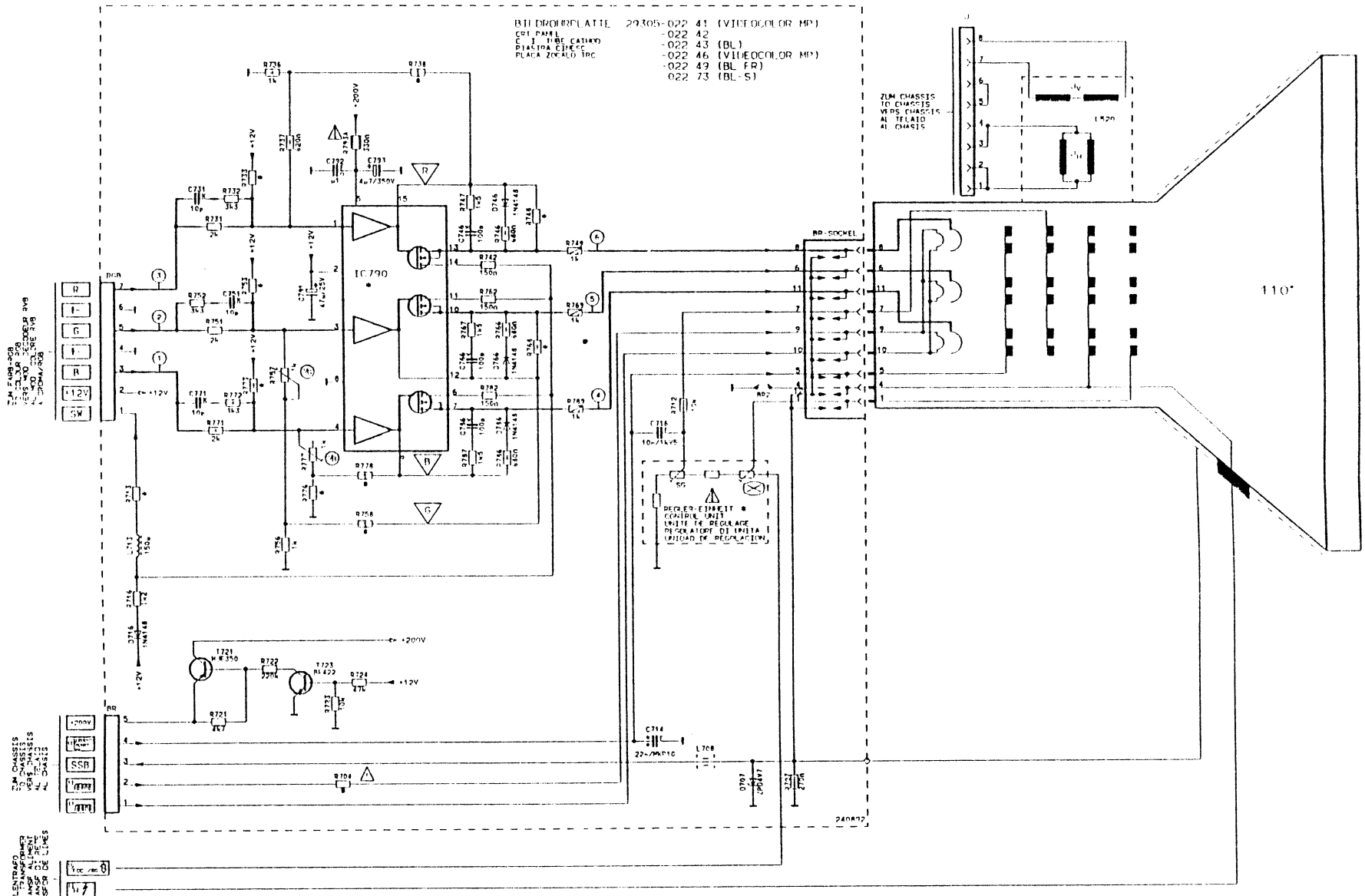
FERNBEDIENUNG
REMOTE CONTROL
TELE COMMANDE
TELECOMANDO
TELEMANDO



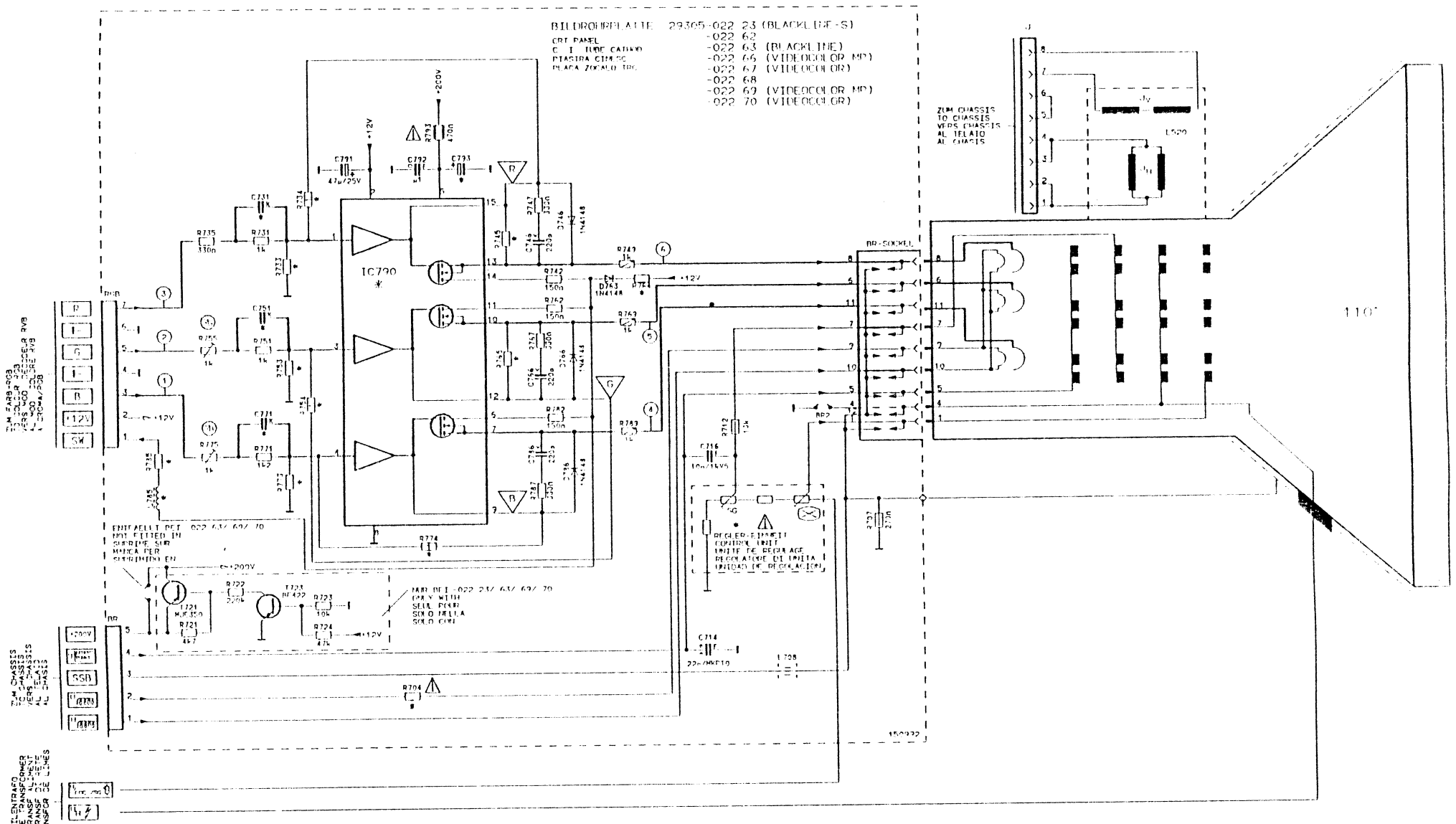
KEYBOARD
KEYBOARD
CLAVIER
KEYBOARD
TECLADO



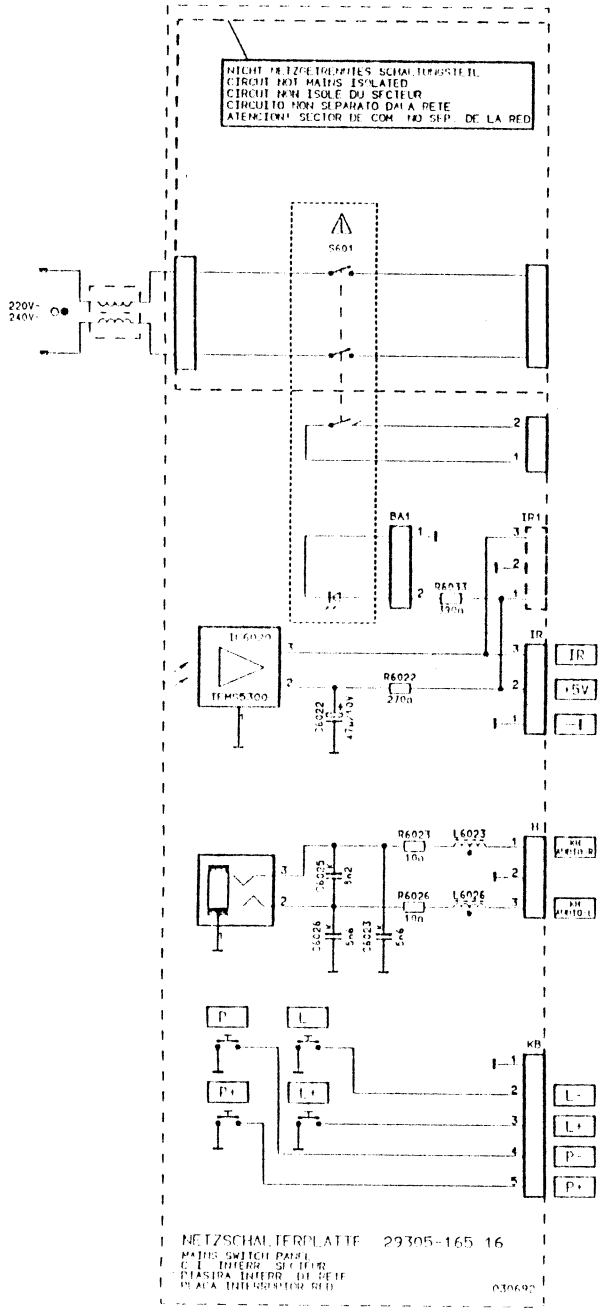

FERNBEDIENUNG
REMOTE CONTROL
TELE COMMANDE
TELECOMANDO
TELEMANDO
IC906
MC 144107 (MOS)
20
4
17
R907
4k7
Q906
CSB 485kHz
D907
TLN115A
T907
BC875
R908
2Ω7
C908
1000µ/10V
D908
1N4001
9V
Z1 Z2 Z3 Z4 Z5 Z6 Z7
PPIN
SH SG SF SE SD SC SB SA
5 2 9 8 1 6 3 7 11 12 16 18 13 19 15 14 10
KEYBOARD
KEYBOARD
CLAVIER
KEYBOARD
TECLADO
SIEMENS
FB 104 ATS
SIEMENS
FB 32 ATS



*	R704	IC790	R738 R758 R778	R733 R751	R748	R76A	R713	R773	REGLER-E	R776
-022 41	2n7/2W	TEA5101A	47k	15k	270k	390k	1k	—	29201-361 01	1k3
-022 42	6n8/1W	TEA5101A	47k	10k	—	—	330n	—	29201-361 01	1k5
-022 43	6n8/1W	TEA5101A/C	56k	8k2	—	—	9100	33k	29201-361 11	1k5
-022 46	2n7/2W	TEA5101A	47k	10k	270k	390k	330n	—	29201-361 01	1k5
-022 49	6n8/1W	TEA5101A/C	56k	8k2	—	—	9100	33k	29201-361 11	1k5
-022 73	6n8/1W	TEA5101A/C	56k	8k2	—	—	9100	33k	29201-361 15	1k5

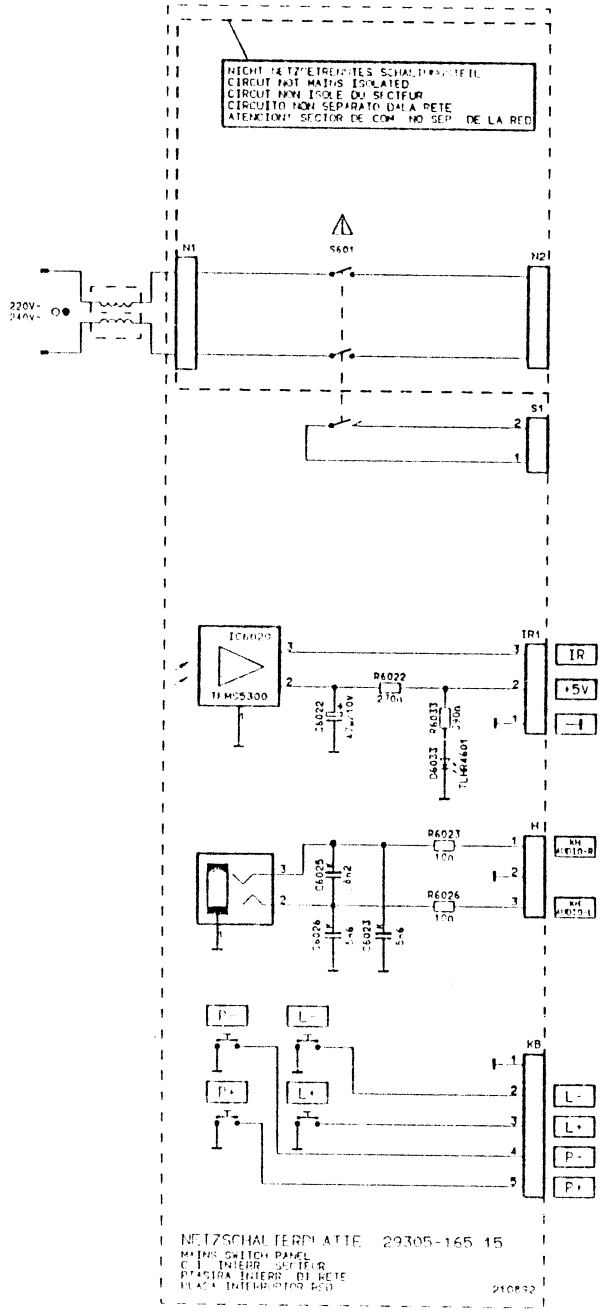


*	C731 C751 C771	C793	R704	R734 R754 R774	R733 R753	R745	R765	R773	R785	R764	L785	REGLER E	IC790
-022 23	27p	2u2/350V	6u8/1W	62k	2k2	——	——	2k	●-●	●-●	●-●	29201-361 15	TEA5101A/D
-022 62	22p	2u2/350V	6u8/1W	47k	1k8	——	——	1k6	●-●	●-●	●-●	29201-361 01	TEA5101A
-022 63	27p	2u2/350V	6u8/1W	62k	2k2	——	——	2k	●-●	●-●	●-●	29201-361 11	TEA5101A/D
-022 66	22p	2u2/350V	2u7/2W	47k	1k8	270k	330k	1k6	●-●	●-●	●-●	29201-361 01	TEA5101A
-022 67	22p	2u2/350V	1u5/2W	47k	1k8	270k	330k	1k6	●-●	●-●	●-●	29201-361 01	TEA5101A
-022 68	22p	4u7/350V	2u7/2W	47k	1k8	270k	330k	1k6	●-●	●-●	●-●	29201-361 11	TEA5101A/D
-022 69	27p	2u2/350V	2u7/2W	62k	2k2	——	——	2k	●-●	●-●	●-●	29201-361 01	TEA5101A
-022 70	27p	2u2/350V	1u5/2W	62k	2k2	——	——	2k	1k7	1k2	150µ	29201-361 01	TEA5101A



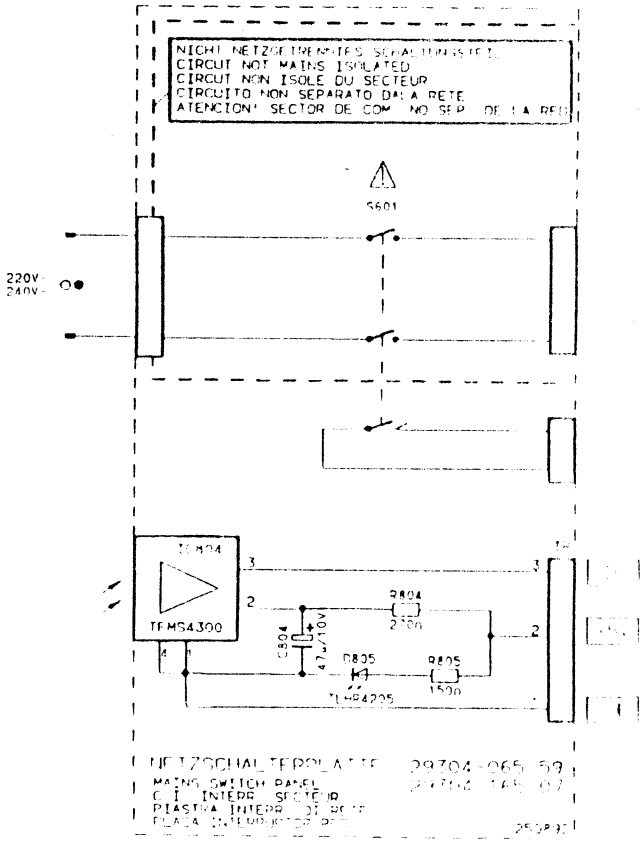
NETZSCHALTERPLATTE 29305-165 16
MAINS SWITCH PANEL
C.I. INTERR. SECTEUR
PIASTRA INTERR. DI RETE
PLACA INTERRUPTOR RED
030692

DRUCK 29304-540.16 (-165.16)
EDER FS221 05.5360

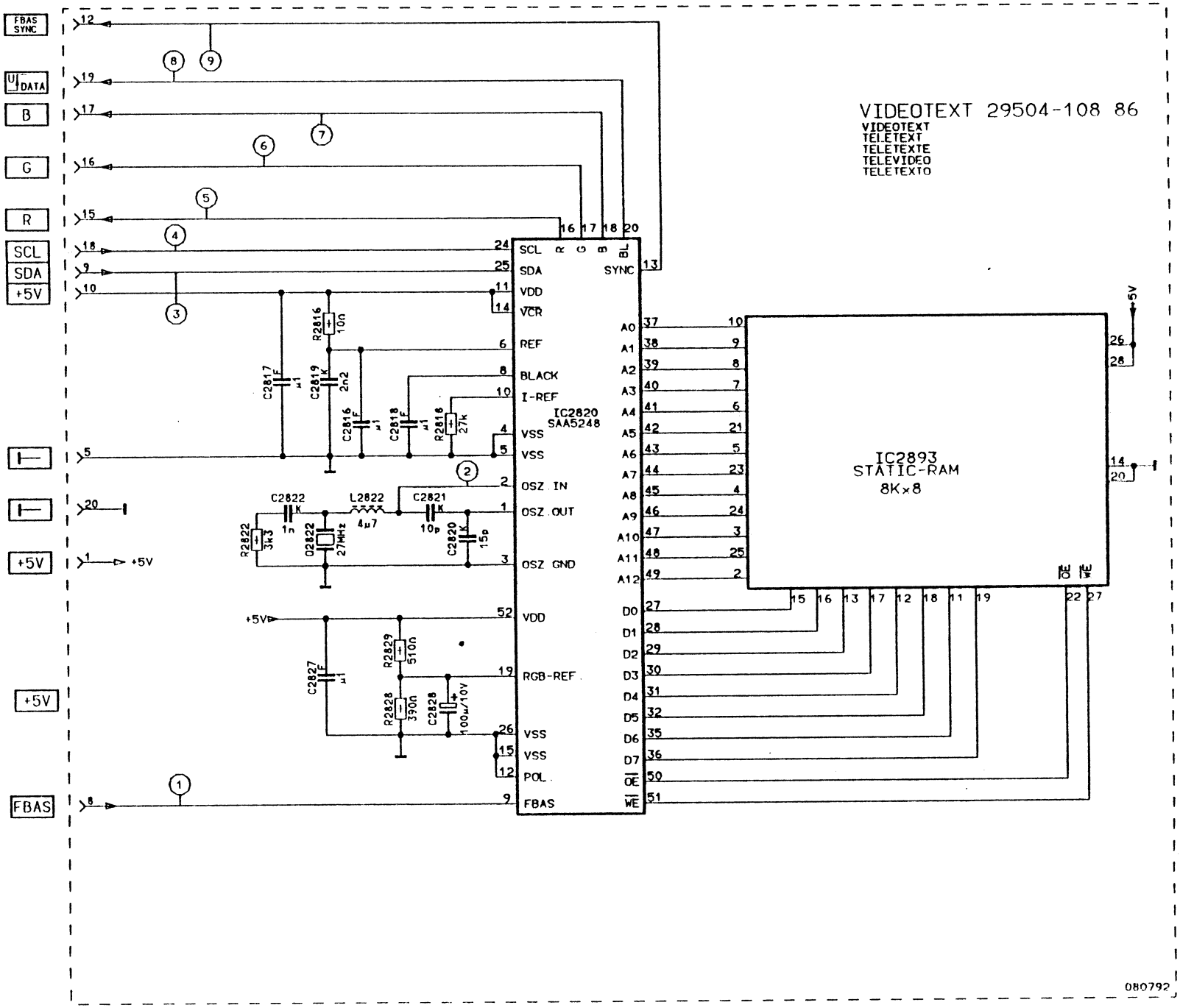


NETZSCHALTERPLATTE 29305-165 15
MAINS SWITCH PANEL
C.I. INTERR. SECTEUR
PIASTRA INTERR. DI RETE
PLACA INTERRUPTOR RED
210892

DRUCK 29304-540.17 (-165.15)
EDER FS236/FS241 05.5360



NETZSCHALTERPLATTE 29304-065 59
MAINS SWITCH PANEL 29304-165.07
C.I. INTERR. SECTEUR
PIASTRA INTERR. DI RETE
PLACA INTERRUPTOR RED
250892


VIDEOTEXT 29504-108 86
VIDEOTEXT
TELETEXT
TELETEXTE
TELEVIDEO
TELETEXTO
FBAS SYNC
U DATA
B
G
R
SCL
SDA
+5V
FBAS
IC2820
SAA5248
IC2893
STATIC-RAM
8K×8
080792

*	R443	R446	IC440	C567	C574	C569	TR526	L573	L567	R584	TR651	R546	R547	R548	R564	C547	R567
21"	14k	n68	TDA4950	µ36/MKP10	µ21	9n/FKP1	29201-029 01	118 97	846 21	4k7	316 97	39k	15k	270k	1n2	µ47/µ56 FR/100V	220k
25"/25"MP	14k	n68	TDA4950	µ36/MKP10	µ26	9n/FKP1	29201-029 01	110 97	846 21	4k7	316 97	39k	15k	270k	1n2	µ47/µ56 FR/100V	220k
28"/28"MP	14k	n68	TDA8145	µ36/MKP10	µ33	9n/FKP1	29201-029 01	110 97	846 21	4k7	316 97	39k	15k	270k	1n2	µ47/µ56 FR/100V	220k
25" VIDEO COLOR	22k	1n5	TDA4950	µ68/MKP10	µ33	11n/FKP1	29201-029 04	110 97	846 24	2k2	317 97	33k	12k	220k	2n7	µ68/MKT5	220k
25" BLACKL	15k	n68	TDA8145	µ36/MKP10	µ26	9n5/FKP1	29201-029 05	110 97	846 21	4k7	312 97	33k	13k	270k	1n2	µ47/µ56 FR/100V	180k
28" BLACKL	15k	n68	TDA8145	µ36/MKP10	µ33	9n5/FKP1	29201-029 05	110 97	846 21	4k7	312 97	33k	13k	270k	1n2	µ47/µ56 FR/100V	180k

IC200
SAA5244A

IC366
TDA7262

IC350
TDA2822M

IC440

IC520
TDA8214A

FARB/RGB 29504-105 50/ 52
-145 52
-165 50/ 52
COLOUR RGB
DECODEUR RVB
COLORE RVB
CROMA RGB

29504-102 18/ 20/ 30
-142 30
-162 41

VERSION A OHNE VIDEOTEXT
WITHOUT TELETEXT

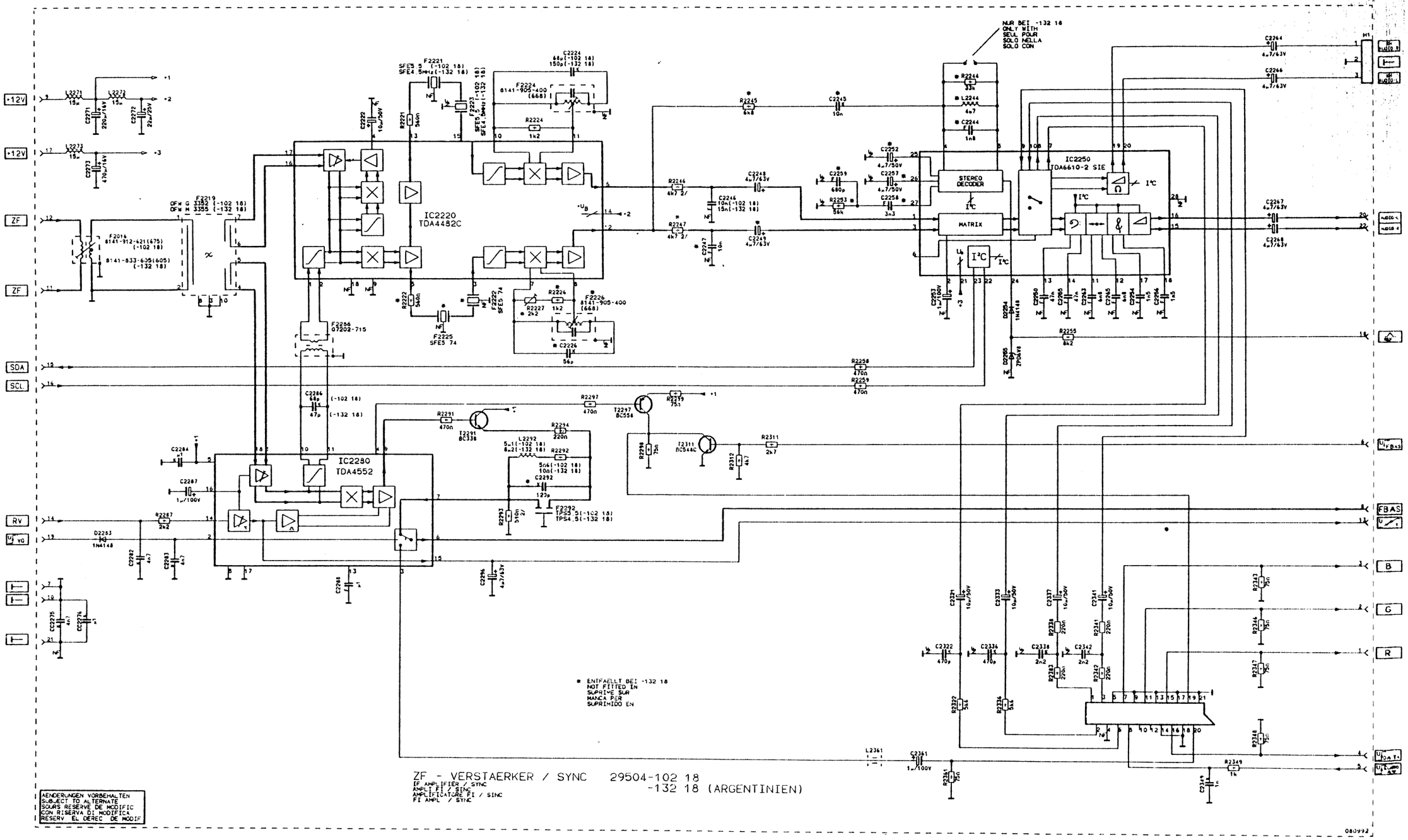
VERSION B MIT TEXT AUF CHASSIS
WIHT TEXT ON CHASSIS

VERSION C MIT TOPTEXT NACHRUESTBAR
WITH TOPTEXT RETRO FITTABLE

**	C206	C242	D247	D263 D268 D273	D871	R242	R243 R246	R247	R262 R267 R272	R263 R268 R273	R278	R279	R671	L223	R223	R224	R225	R876 R881 R886
VERS A	——	——	⟷	——	⟷	——	——	——	620Ω	——	——	1k	1k	——	——	——	——	3k3
VERS B	1µ/100V	220p	——	⟷	1N4148	4k7	470Ω	——	820Ω	2k	1k	——	910Ω	⟷	47Ω	390Ω	1k	3k3
VERS C	1µ/100V	220p	1N4148	1N4148	1N4148	4k7	470Ω	2k7	820Ω	2k	1k	——	910Ω	⟷	47Ω	390Ω	1k	3k3
VERS B/PIP	1µ/100V	220p	——	⟷	1N4148	4k7	470Ω	——	820Ω	2k	1k	——	910Ω	⟷	47Ω	390Ω	1k	2k7
VERS C/PIP	1µ/100V	220p	1N4148	1N4148	1N4148	4k7	470Ω	2k7	620Ω	620Ω	1k	——	910Ω	⟷	47Ω	390Ω	1k	2k7

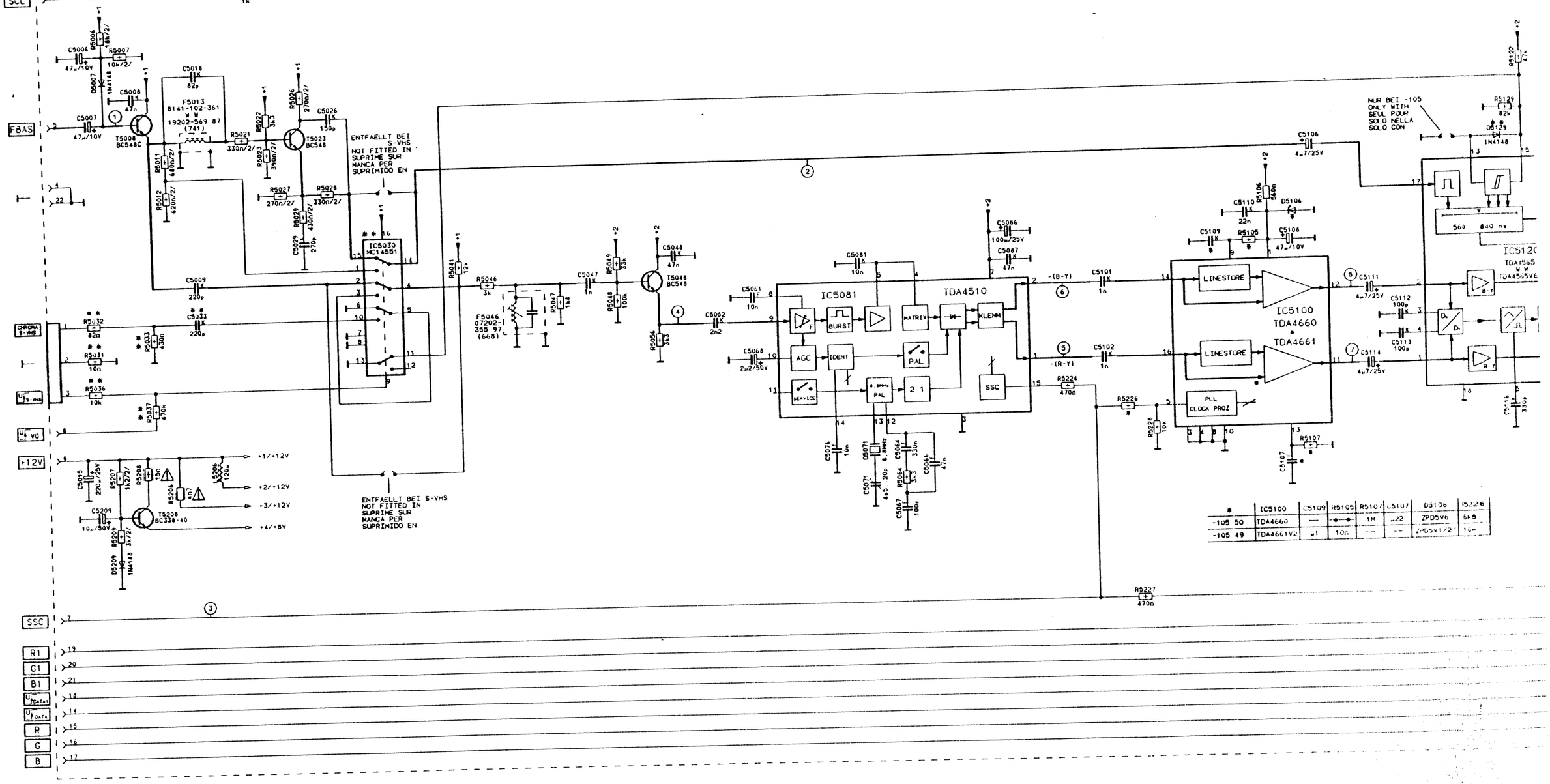
SIEMENS CS 9106

25618 907 01
160792

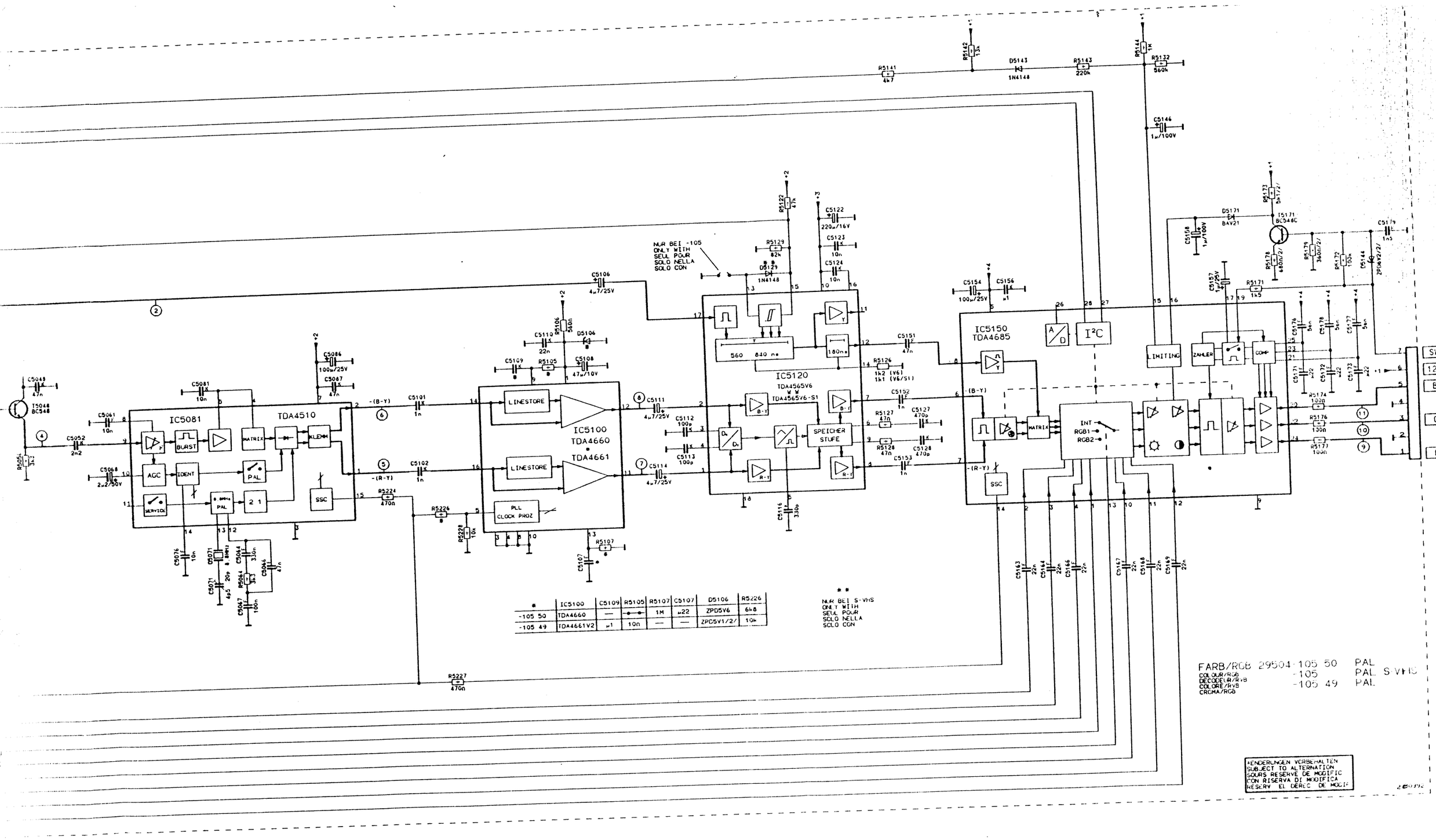

IC2220
TDA4482C
IC2250
TDA6610-2 SIE
IC2280
TDA4552
STEREO DECODER
MATRIX
I²C
+12V
+12V
ZF
ZF
SDA
SCL
RV
FBAS
R
G
B
* ENTFAELLT BEI -132 18
NOT FITTED IN
SUPRIME SUR
MANCA PER
SUPRIMIDO EN
ZF - VERSTAERKER / SYNC 29504-102 18
-132 18 (ARGENTINIEN)
IF AMPLIFIER / SYNC
AMPLI. FI / SYNC
AMPLIFICATORE FI / SINC
FI AMPL / SYNC
AENDERUNGEN VORBEHALTEN
SUBJECT TO ALTERNATE
SOUMIS RESERVE DE MODIFIC
CON RISERVA DI MODIFICA
RESERV EL DEREC DE MODIF
080992

ZF-VERSTAERKER 29504-102 30
IF AMPLIFIER
AMPLIFI FI
AMPLIFICATORE FI
AMPLIFICADOR FI

IC2220 TDA4482
IC2250 TDA6610 + TDA6611
IC2280 TDA4452
IC2345 MC14052
IC2335 MC14052
STEREO DECODER
MATRIX
EURO-AV-BU 1
EURO-AV-BU 2
ZUM CHASSIS
TO CHASSIS
VERS CHASSIS
ALLO CHASSIS
AL CHASIS



*	IC5100	C5109	R5105	R5107	C5107	D5106	R5226
-105 50	TDA4660	—	●	1M	22	ZPD5V6	68
-105 49	TDA4661V2	1	10k	—	—	ZPD5V1/2	10k



*	IC5100	C5109	R5105	R5107	C5107	D5106	R5226
-105 50	TDA4660	—	—	1M	ω22	ZPD5V6	6k8
-105 49	TDA4661V2	ω1	10n	—	—	ZPD5V1/2/	10k

** NUR BEI S-VHS
ONLY WITH
SEUL POUR
SOLO NELLA
SOLO CON

FARB/RGB 29504-105 50 PAL
COLOUR/RGB -105 PAL S-VHS
DECODEUR/RVB -105 49 PAL
COLORE/RVB
CROMA/RGB

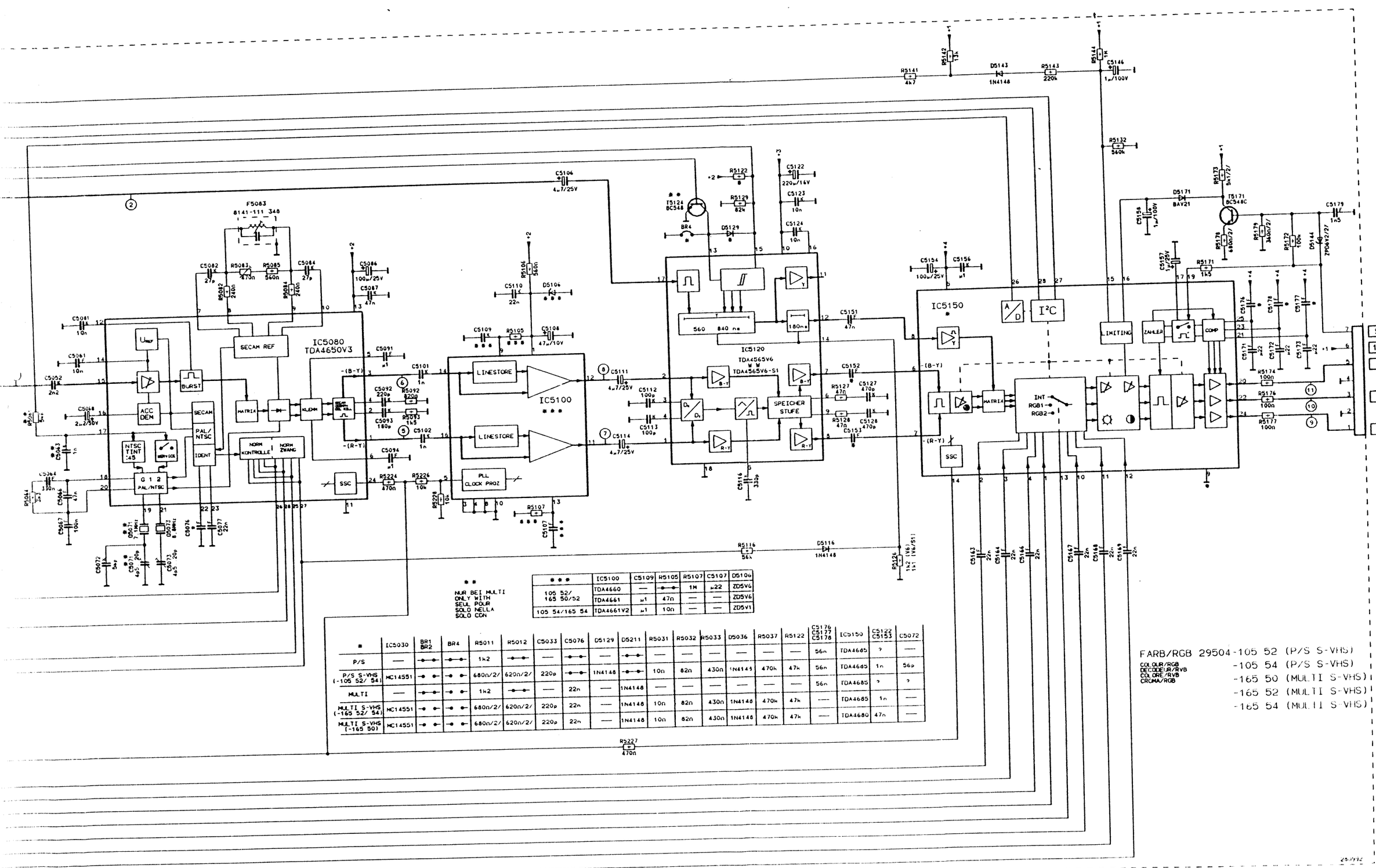
ÄNDERUNGEN VORBEHALTEN
SUBJECT TO ALTERNATION
SOUS RESERVE DE MODIFIC
CON RISERVA DI MODIFICA
RESERV EL DEREC DE MODIF

SB
SDA
SCL
FBAS
SSC
R1
G1
B1
R
G
B
+12V
IC5030
IC5080 TDA4650V3
IC5100
IC5120 TDA4565V6
F5083 8141-111 348
F5013 8141-102-361 19202-569 87
F5046 07202-355 97 (668)
F5051 07202-355 97 (668)
L5206 120µ
T5008 BC548C
T5016 BC548C
T5017 BC558C
T5021 BC548
T5048 BC548
T5054 BC548
T5124 BC548
T5208 BC338-40
BR1
BR2
BR4
SECAM REF
BURST
ACC DEM
SECAM
PAL/NTSC
IDENT
MATRIX
KILLER
NORM KONTROLLE
NORM ZWANG
NTSC TINT :45
KONTRAST
G 1:2 PAL/NTSC
SSC
LINESTORE
PLL CLOCK PROZ
+1/+12V
+2/+12V
+3/+12V
+4/+8V

*	IC5030	BR1 BR2	BR4	R5011	R5012	C5033	C5076	D5129	D5211	R5031	R5032	R5033	R5036	R5037	R5
P/S	—	-●-●-	-●-●-	1k2	-●-●-	—	-●-●-	—	-●-●-	—	—	—	—		
P/S S-VHS (-105 52/ 54)	MC14551	-● ●-	-● ●-	680n/2/	620n/2/	220p	-●-●-	1N4148	-●-●-	10n	82n	430n	1N4148	470n	47
MULTI	—	-●-●-	-● ●-	1k2	-●-●-	—	22n	—	1N4148	—	—	—	—		
MULTI S-VHS (-165 52/ 54)	MC14551	-● ●-	-● ●-	680n/2/	620n/2/	220p	22n	—	1N4148	10n	82n	430n	1N4148	470n	47
MULTI S-VHS (-165 50)	MC14551	-● ●-	-● ●-	680n/2/	620n/2/	220p	22n	—	1N4148	10n	82n	430n	1N4148	470n	47

***	IC5100	C5109	R5105	R5107	C5107	D5106
105 52/ 165 50/52	TDA4660	—	-●-●-	1M	µ22	ZD5.6
105 54/165 54	TDA4661	µ1	47n	—	—	ZD5.6
105 54/165 54	TDA4661V2	µ1	10n	—	—	ZD5.6

** NUR BEI MULTI
ONLY WITH
SEUL POUR
SOLO NELLA
SOLO CON

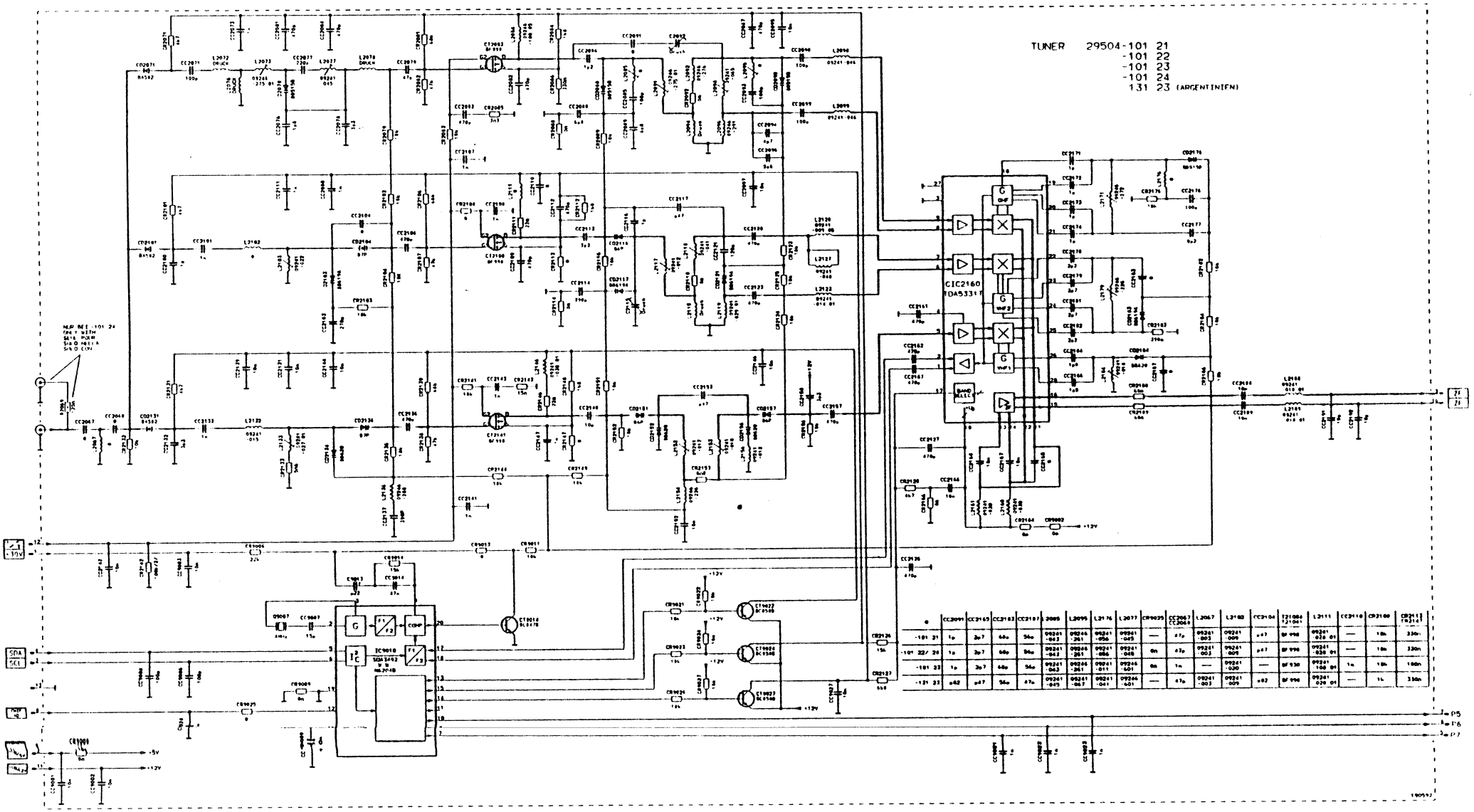


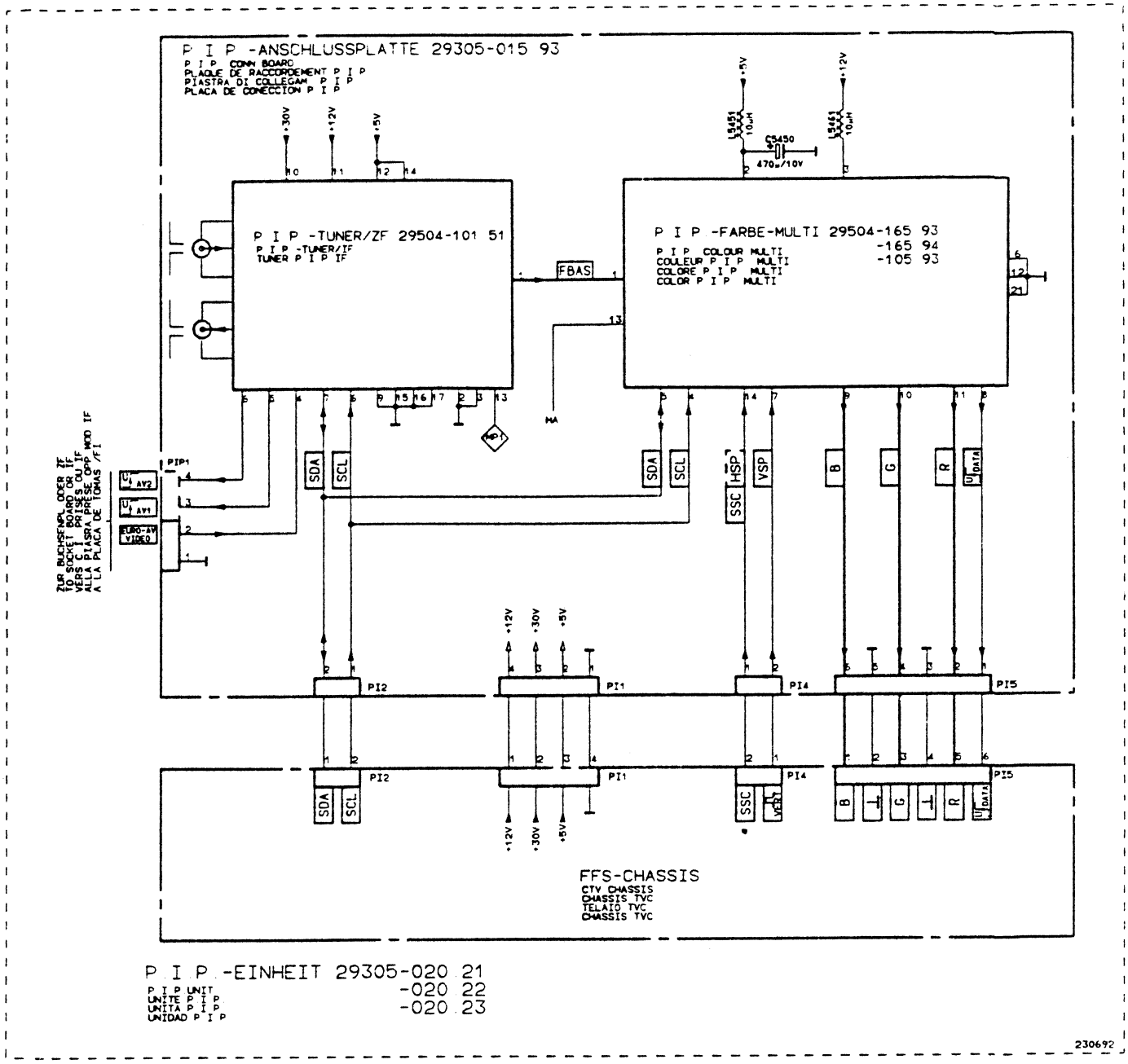
*	IC5030	BR1 BR2	BR4	R5011	R5012	C5033	C5076	D5129	D5211	R5031	R5032	R5033	D5036	R5037	R5122	C5176 C5177 C5178	IC5150	C5122 C5153	C5072
P/S	—	●—●	●—●	1k2	●—●	—	●—●	—	●—●	—	—	—	—	—	—	56n	TDA4685	?	—
P/S S-VHS (-105 52/ 54)	MC14551	→●	→●	680n/2/	620n/2/	220p	●—●	1N4148	●—●	10n	82n	430n	1N4148	470k	47k	56n	TDA4685	1n	56p
MULTI	—	●—●	→●	1k2	●—●	—	22n	—	1N4148	—	—	—	—	—	—	56n	TDA4685	?	?
MULTI S-VHS (-165 52/ 54)	MC14551	→●	→●	680n/2/	620n/2/	220p	22n	—	1N4148	10n	82n	430n	1N4148	470k	47k	—	TDA4685	1n	—
MULTI S-VHS (-165 50)	MC14551	→●	→●	680n/2/	620n/2/	220p	22n	—	1N4148	10n	82n	430n	1N4148	470k	47k	—	TDA4680	47n	—

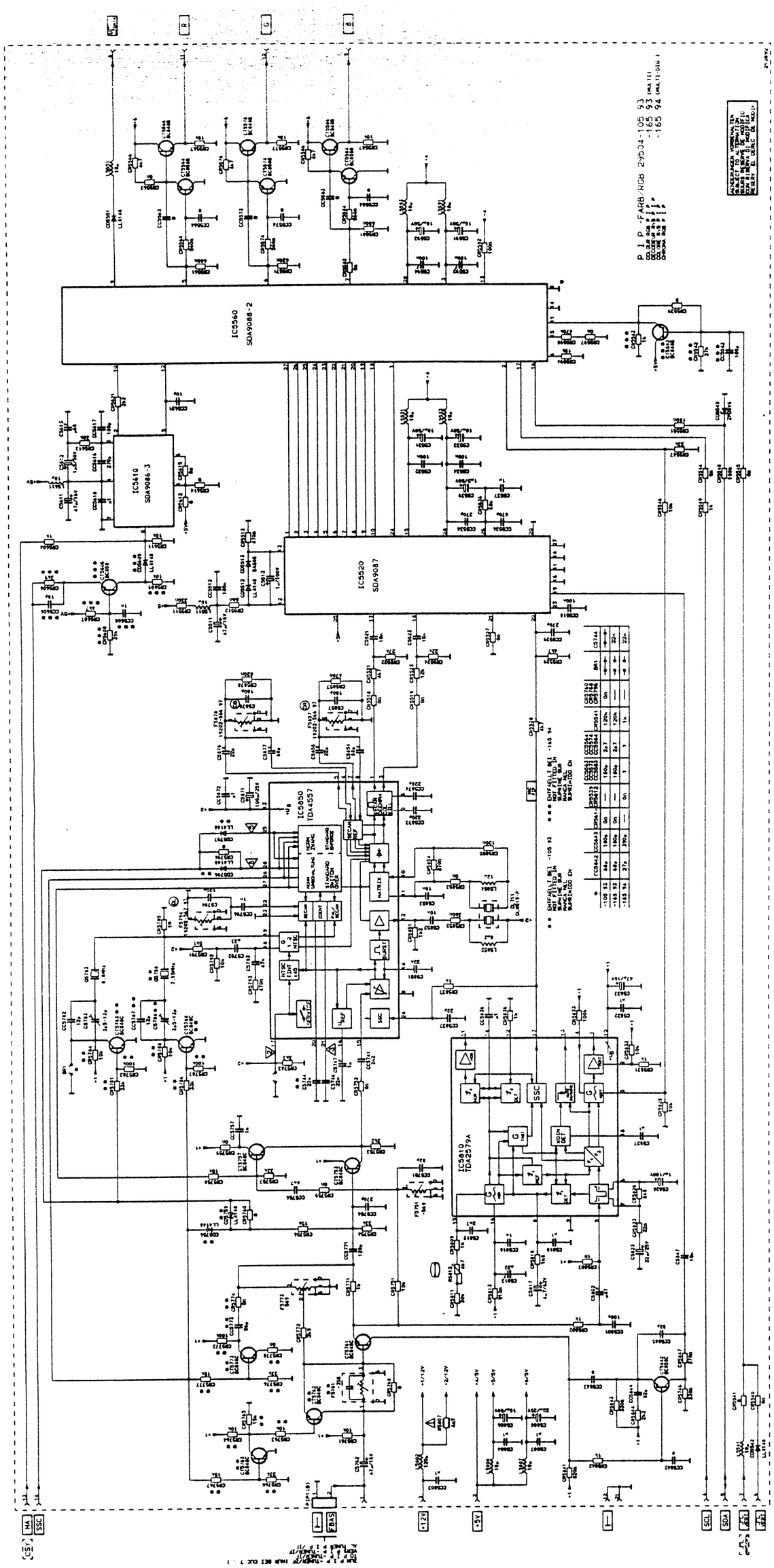
***	IC5100	C5109	R5105	R5107	C5107	D5106
105 52/ 165 50/52	TDA4660	—	●—●	1M	µ22	ZD5V6
	TDA4661	µ1	47n	—	—	ZD5V6
105 54/165 54	TDA4661V2	µ1	10n	—	—	ZD5V1

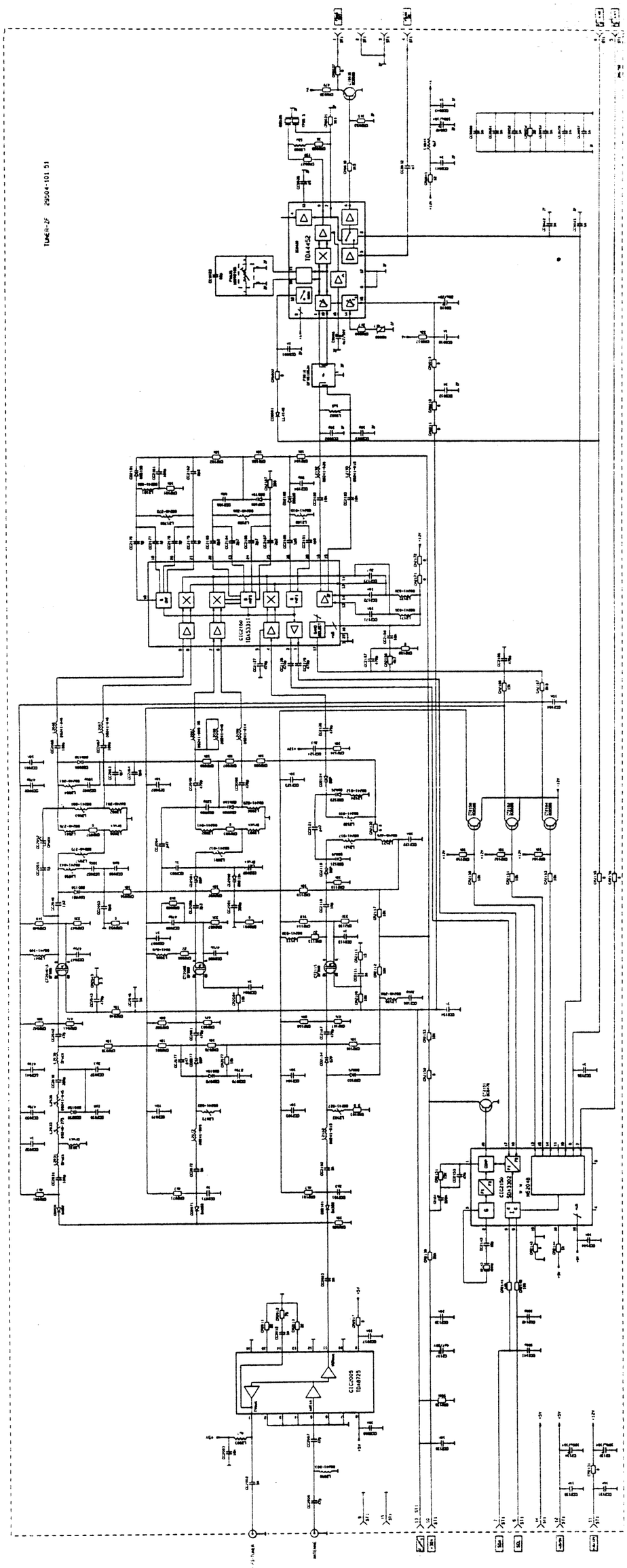
** NUR BEI MULTI
ONLY WITH
SEUL POUR
SOLO NELLA
SOLO CON

FARB/RGB 29504-105 52 (P/S S-VHS)
COLOUR/RGB DECODEUR/RVB COLORE/RVB CROMA/RGB
-105 54 (P/S S-VHS)
-165 50 (MULTI S-VHS)
-165 52 (MULTI S-VHS)
-165 54 (MULTI S-VHS)


TUNER 29504-101 21
-101 22
-101 23
-101 24
131 23 (ARGENTINIEN)
CIC2160
TDA5331T
SDA
SCL
IC9010
SDA5242
+5V
+12V
-12V
-30V
P5
P6
P7


P I P -ANSCHLUSSPLATTE 29305-015 93
P I P CONN BOARD
PLAQUE DE RACCORDEMENT P I P
PIASTRA DI COLLEGAM P I P
PLACA DE CONECCION P I P
P I P -TUNER/ZF 29504-101 51
P I P -TUNER/IF
TUNER P I P IF
P I P -FARBE-MULTI 29504-165 93
P I P COLOUR MULTI -165 94
COULEUR P I P MULTI -105 93
COLORE P I P MULTI
COLOR P I P MULTI
FBAS
SDA
SCL
HSP
VSP
SSC
B
G
R
PI1
PI2
PI4
PI5
FFS-CHASSIS
CTV CHASSIS
CHASSIS TVC
TELAIO TVC
CHASSIS TVC
ZUR BUCHSENPL. ODER ZF
TO SOCKET BOARD OR IF
VERS C.I. PRISES OU IF
ALLA PIASTRA PRESE OPP MOD IF
A LA PLACA DE TOMAS /FI
P I P -EINHEIT 29305-020 21
P I P UNIT -020 22
UNITE P I P -020 23
UNITA P I P
UNIDAD P I P
230692


IC5560
SDA9086-2
IC5610
SDA9086-3
IC5520
SDA9087
IC5850
TDA4557
IC5810
TDA2579A
P I P -FARB-/RGB 29504-105 93
-165 93
-165 94


TUNER-2F 2P504-101 S1
TDA4452
CIC0005
TDA8725
CIC2150
SDA3302
MSP3410